Remarks

Claims 16 - 33 are pending. Favorable reconsideration is respectfully requested.

The restriction requirement is traversed. Claims 24 - 28 are dependent upon claim 16, which is a linking claim. Applicants do not claim merely any transfer in claims 24 - 28, but only those suitable for providing a computer generated graphics image in accordance with claim 16.

Contrary to the assertion of the Office on page 2 of the Office Action, the process cannot be practiced with another materially different product such as one having a fusible polymer coated on the fusible polymer ink, since the product would then be different. Note that claim 24 contains the limitation that no fusible polymer other than the fusible polymer ink be present.

As the claims are linked through a linking claim, and as the rationale *vis á vis* restriction is incorrect, withdrawal of the restriction requirement is respectfully requested.

Claim 27 has been rejected under 35 U.S.C. § 112 ¶2. This claim has been amended and is believed to fully comply with the statutes. Claim 24 has been amended to more particularly point out and distinctly claim what Applicant regards as his invention. The term "optionally dried" has been removed, there being no necessity for this optional limitation. The ink jet-printed images rapidly dry, and irrespective thereof, can be used when fully dry or only partially dry. The claim has been further amended to recite that the image to be transferred is computer generated, and that the fusible ink is present in the form of particles, as described on page 13, wherein an emulsion or dispersion of fusible polymer ink is disclosed. No new matter is introduced by these amendments.

Claims 24, 25, and 28 have been rejected under 35 U.S.C. § 102(b) as anticipated by D'Oliveira GB 2 189 436 A (*"GB '436"*). Applicant respectfully traverses this rejection.

GB '436 discloses a known process for preparation of graphics images on fabric by dye sublimation printing. In this process, a printer employing sublimation dyes such as those disclosed on page 1 is used to prepare a graphics image on a substrate. The substrate is then positioned adjacent the fabric article to which the image is to be transferred, and heated. The heating process causes the dyes to sublime (solid → vapor). The sublimed vapor contacts the fabric article and dyes the individual fibers. The ink contains no fusible polymer ink. Rather, the dyes are designed specifically to sublime, and must be selected from an art recognized category of dyes termed "disperse dyes." No polymer image is created, only a dyed image. No fusible polymer ink is present, any "sublimation" or "disperse" dyes, which are not polymers. Reference may be had to the COLOUR INDEX, Society of Dyers and Colourists, Yorkshire, England, 2d Ed. 1956. Contrary to the Examiner's contention, the subject invention requires a fusible polymer ink. The fusible polymer ink is not and has never been optional. Withdrawal of the rejection over *GB '436* is solicited.

Claims 24 - 28 have been rejected under 35 U.S.C. § 102(b) over Kronzer U.S. Patent 4,863,781 (*"Kronzer"*). Applicant respectfully traverses this rejection.

The present invention is directed to an improvement in fabric transfers by which a "plastic" image is transferred to a fabric and fused thereon. Prior to the subject invention, such transfers were made by screen printing dyes onto a fusible polymer coated paper. The resulting procedure is complex and ill-suited to "one-off" transfers, which have been produced instead by dye sublimation, as disclosed in *GB '436*. However, that process does not produce a polymer image, but a dyed image, which has an entirely different look and feel.

The inventors have found that fusible polymer inks may be printed from ink jet printers, which is surprising in view of the amount of polymer which must be contained in the ink and its large polymer particle size relative to conventional pigments which are very fine.

It was highly unexpected that the nozzles of the ink jet printer were not immediately clogged. As a result of Applicant's invention, computer generated graphics can be used with readily available ink jet printers, to create a plastic transfer on inexpensive substrates, i.e. siliconized plain or kraft paper. The claims require that the substrate be free of fusible polymer.

Kronzer is directed to an improvement in preparing graphics images such as lettering, by placing a fusible polymer layer below a release coating, onto which vinyl ink may be coated by conventional printing techniques, i.e. rotary screen printing. Upon application to a fabric, the fusible, conformable polymer layer melts and flows in the vacuum transfer press (e.g. Col. 6, lines 43 - 59).

Applicant's process does not require an expensive vacuum press, which is not available in the market to which the subject invention is principally directed, kiosks in shopping malls, etc., where only simple heated presses are available. Moreover, the claims distinctly recite that the planar substrate be free of fusible polymer, while the product of *Kronzer* requires a fusible, conformable polymer layer. *Kronzer* clearly does not anticipate the claimed invention. Withdrawal of the rejection over *Kronzer* is solicited.

Applicant also notes that the Office gave no weight to the process by which the polymer ink is printed. Applicant submits that this language must be considered as a claim limitation. The use of computer generated images of fusible polymer ink "breathes life and meaning into the claims," and based on accepted precedent, must be considered when assessing claim scope and patentability. This is not a meaningless limitation. Moreover, the image created by ink jet printers, being based on microdroplets (substantially equivalent to pixels in CRT and plasma displays) is different from the type of image created by other techniques.

Applicants submit that the claims are now in condition for Allowance, and respectfully request a Notice to that effect. If the Examiner believes that further discussion will advance the prosecution of the Application, he is highly encouraged to telephone Applicants' attorney at the number given below.

Respectfully submitted,

KYLE GLENN CROSS

By _____
William G. Conger
Reg. No. 31,209
Attorney/Agent for Applicant

Date: March 7, 2003

BROOKS & KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075
Phone: 248-358-4400
Fax: 248-358-3351

Attachment

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

24. (Amended) A transfer containing a computer generated graphics image suitable for transfer onto a fabric garment by application of heat and pressure by the process of claim 16, said transfer comprising:

(a) a planar substrate, optionally coated with a non-fusible release coating, and free of fusible polymer;

(b) a graphics image consisting essentially of [an optionally] particles of a dried fusible polymer ink, said graphics image printed onto said substrate by means of an ink-jet printer containing at least one ink-jet cartridge containing particles of said fusible polymer ink, said printer controlled by a computer-readable graphics file input to said printer, said graphics image printed onto one surface of said substrate, said transfer containing no fusible polymer other than the fusible polymer of said fusible polymer ink.

27. (Amended) The transfer of claim 24, wherein said substrate is paper, and said optional non-fusible release coating is present [comprises a release coated paper].